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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/758,165	01/12/2001	Seiji Umemoto	Q62649	9366

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EXAMINER

NGUYEN, THONG Q

ART UNIT PAPER NUMBER

2872

DATE MAILED: 05/15/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicant(s)

09/758,165

Applicant(s)

UMEMOTO ET AL.

Examiner

Thong Q. Nguyen

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 April 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) 12-38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7, 8, 10 and 11 is/are rejected.
- 7) ☒ Claim(s) 6 and 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 June 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4. 6) ☐ Other:

DETAILED ACTION

Election/Restrictions

1. Claims 12-38 have been withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 8 of 04/06/2002.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

3. The formal drawings contain six sheets of figures 1A-14 filed by applicant on 6/6/2001 have been received by the Office.

4. Figure 14 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: In particular, the numerical reference "23" as shown in each of figures 7-10 and 13-14 is not mentioned in the specification. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

6. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

7. The disclosure is objected to because the present Summary of the invention does not comply with the requirements as set forth in 37 CFR 1.73. In other words, the present summary is too long and contains numerous details of the inventive device. It is also noted that the summary refers to the prior art (see pages 6 and 7) and also refers to the drawings (see figure 8). Appropriate correction is required.

8. The disclosure is objected to because of the following informalities: The brief description of figure 13 is unclear in comparison with the structure of the device as shown in the drawings. In particular, in page 10 (lines 13-14), applicant has stated that figure 13 is a view showing the relationship between the refractive index and an optical path; however, figure 13 shows a physical structure of the a liquid crystal display. Appropriate correction or explanation is required.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 1-5, 7-8 and 10-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a) Claim 1 is rejected under 35 USC 112, second paragraph by the recitation thereof "an adhesive layer...transparent film" (lines 3-6). First, it is unclear about the so-called "a layer of said one surface of said transparent film" as recited in lines 5-6 of the claim. Second, the mentioned feature is confusing because the specification has never taught that the transparent film (11) is a structure having plural layers. The specification discloses an optical film having the following features: First, a transparent element (11) having two surfaces wherein an adhesive layer (11) is attached to one surface of the transparent element (11) and a layer of prismatic structure (13) is attached to the other surface of the transparent element; and Second, the difference in refractive index between the transparent element (not a layer of one surface of the transparent element) and the adhesive is equal to or less than 0.1.

b) Claim 8 is indefinite because the feature "such as" (line 4) renders the claim indefinite. Applicant should note that the use of such terms make the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

c) The remaining claims are dependent upon the rejected base claim and thus inherit the deficiencies thereof.

Claim Objections

11. Claims 6/1 and 9/1 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

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Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

a) Claim 6/1 is objected to because the range governing the range of inclination of the slope is larger than the range of inclination recited in its base claim. In other words, while the range of the inclination in the base claim is from 35 degrees to 48 degrees; however, the range in the claim 6/1 is not smaller than 35 degrees.

b) Claim 9/1 is objected to because it recites a component which is not a part of the film as recited in its base claim 1. In other words, the reflector is not a component of the optical film recited in the base claim 1.

Double Patenting

12. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

13. Claims 1-5, 7-8 and 10-12, as best as understood, are directed to the same invention as that of claims 1-9 and 11-12 of commonly assigned application, Serial No. 09/756,792. The issue of priority under 35 U.S.C. 102(g) and possibly 35 U.S.C. 102(f) of this single invention must be resolved.

Since the U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP § 2302), the assignee is required to state which entity is the prior inventor of the conflicting subject matter. A terminal disclaimer has no effect in this situation since the basis for refusing more than one patent is priority of invention under 35 U.S.C. 102(f) or (g) and not an extension of monopoly.

Failure to comply with this requirement will result in a holding of abandonment of this application.

14. Claims 1, 3-5, 7-8 and 10-11 are directed to the same invention as that of claims 1-6, 9, and 11-13 of commonly assigned application, Serial No. 09/774,618. The issue of priority under 35 U.S.C. 102(g) and possibly 35 U.S.C. 102(f) of this single invention must be resolved.

Since the U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP § 2302), the assignee is required to state which entity is the prior inventor of the conflicting subject matter. A terminal disclaimer has no effect in this situation since the basis for refusing more than one patent is priority of invention under 35 U.S.C. 102(f) or (g) and not an extension of monopoly.

Failure to comply with this requirement will result in a holding of abandonment of this application.

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 1, 3-5, 7, and 10-11, as best as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Bao et al (EP 867 747) in view of Tai et al (U.S. Patent No. 5,390,276).

Bao et al disclose a reflective display system. The system comprises a transparent guide light adhesive to a panel. In columns 14-15 and figs. 9-11, the transparent light guide (20) having two surfaces in which one surface comprises a pattern of prismatic elements and the other surface comprises an adhesive layer (40a) for bonding the light guide to a panel (O). It is also noted that the material for making the adhesive layer (40a) is a resin having its refractive index matching with the refractive index of the transparent guide light (20) and the panel (O). See column 14, for example. The prismatic configuration as shown in figure 10 comprises a continuously set of triangular-shaped projections wherein each projection is formed by a first plane (22) defined a slightly angle with the surface of the guide light and other plane (21) defined another angle larger than the angle formed by the mentioned first plane with the surface of the guide light. As shown in figure 9, the prismatic configuration comprises a plurality of

prismatic projection which each extends in a direction parallel to the side (or entrance) surface of the guide light facing the light source system (30) (see also figure 11). As such, the system provided by Bao et al meets all of the limitations of the device claimed except it does not clearly state that the prismatic configuration formed on one surface of the transparent guide light can be a structure on the surface of the guide light. However, a prismatic configuration can be formed directly on one surface of a guide light or formed as a separately structure coating/bonding on one surface of the guide light is clearly suggested to one skilled in the art as can be seen in the optical system provided by Tai et al. In particular, at columns 4-5 and figs. 1-5, Tai et al teach that the arrangement (36) which is a prismatic configuration can be an integral part of the guide light or a separate layer bonding to the guide light. Column 5, lines 7-35. It is also noted that the each of the prism has a triangular shape and the angle defined by each side of the triangular prism with the surface of the guide light can be 40 degrees (see column 5, lines 14-15 and lines 45-46). Thus, it would have been obvious to one skilled in the art at the time the invention was made to utilize the teaching provided by Tai et al by preparing a set of transparent guide light and a layer having prismatic configuration wherein the prismatic layer is able to select by choice of the user/manufacture to integrally form on the surface of the guide light or bonding to the surface of the guide light instead of a unitary guide light with prismatic configuration to control the manufacture cost.

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17. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bao et al in view of Tai et al as applied to claim 1 above, and further in view of the Japanese reference No. 11-142618.

The optical film as provided by Bao et al and Tai et al does not disclose that the adhesive layer has a strip sheet. However, the use of a combination of an adhesive layer and a strip sheet on one surface of a glass plate wherein the adhesive layer is a diffusing layer is suggested to one skilled in the art as can be seen in the optical film provided in the Japanese reference '618. Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the optical film as provided by Bao et al and Tai et al by using an adhesive layer having a diffusing feature and a strip sheet as suggested by the Japanese reference '618 for the purpose of providing an adhesive layer having a diffusing feature and the strip sheet is removably used to protect the layer before it is placed in use.

18. Claim 8, as best as understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Bao et al in view of Tai et al as applied to claim 1 above, and further in view of Qiao et al (U.S. Patent No. 5,485,291).

The optical film as provided by Bao et al and Tai et al does not disclose that the prismatic structure comprises discontinuous grooves. However, the use of a light guide having a prismatic structure formed on one surface thereof wherein the prismatic structure comprises a plurality of discontinuous grooves is known to one skilled in the art as can be seen in the lighting panel provided by Qiao et al.

In columns 2-4, Qiao et al discloses an arrangement of discontinuous grooves on one surface of the light guide (17). Each of the groove is formed by two slopes in which one slope is gentle inclination with the plane of the light guide, i.e. in the range of 1 degree to 15 degrees while the other slope is formed with the plane of the light guide by an inclination in the range of 35 degrees to 55 degrees. It is noted that since the depth of the groove is in the range of 5 and 10 micrometers and the angle of the gentle inclination is in the range of 1 degree to 10 degrees; therefore, the length of each discontinuous groove is not smaller than five times as large as a depth of the groove. It is also noted that since the land between two adjacent grooves can be 200 microns; therefore, the area of the discontinuous grooves can be selected or controlled so that it is not larger than 10% of the area of the whole surface of the light guide. Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the combined product provided by Bao et al and Tai et al by utilize a prismatic structure as suggested by Qiao et al for the purpose of improving the optical performance of the whole system.

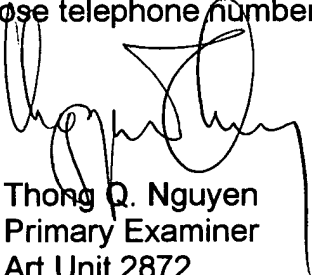
Conclusion

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thong Q. Nguyen whose telephone number is (703) 308-4814. The examiner can normally be reached on M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cassandra Spyrou can be reached on (703) 308-1687. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 0956.



Thong Q. Nguyen
Primary Examiner
Art Unit 2872

May 10, 2002